Work Order ID 119247

119247

May-14-14 10:26:20 AM

Item ID: D4635-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Fwd Ceiling Panel, LH

Start Date: 5/14/14 **Start Qty:** 1.00 *1* **Cust Item ID:**

Required Date: 5/14/14 **Req'd Qty:** 1.00 *1* **Customer:**

Reference: **Run Start** *NR1*

Stop *NR2*

Approvals: **Process Plan:** MLJ **Date:** 14-05-14 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr: D4635 / Revision Nbr: E									DAS 07 9-89
100	HAND FINISHING THERMOFORMING	0.00				x1			
100 Thermoform	**Memo** Cut Blanks	0.00							14/05/13
Thermoforming Machine									
									DAS 07 9-89
105	Dry Material	0.00				x1			
105 HandThermo	**Memo** Dry Sheet as per QSI022 POLYCARBONATE	0.00							14/05/13
Hand Finishing Thermoforming	Temp: 245 deg. F Time IN: 5:00 PM 6:00 AM Time OUT: _____								

MAY 13 2014

Per.....

DQA: _____ Date: _____

DART AEROSPACE

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

☐ Bending
☐ Centre Not Concentric
☐ Cracks
☐ Crimp/Kink/Ripple/Wave
☐ Cuffs
☐ Crushing
☐ Heat Treat
☐ Inspection Strip in Tube
☐ Marks/Chatter
☐ Turning Sequence
☐ Wave/Twist in Tube

General

☐ Bend
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Burrs
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Drawing
☐ Drill Holes
☐ Finish
☐ Fit/Function
☐ Folio/Program
☐ Grain
☐ Hardware
☐ Inspection Incomplete/Unqualified
☐ Instructions Incomplete/Unclear
☐ Misaligned/off center
☐ Mislabeled
☐ Misread
☐ Off-set
☐ Out of Calibration
☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Work Order ID 119247

119247

May-14-14 10:26:20 AM

Item ID: D4635-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Fwd Ceiling Panel, LH

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Required Date: 5/14/14 **Req'd Qty:** 1.00 *1*

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	THERMOFORMING MACHINE	0.00				x1			DAS 07 9-89
110 Thermoform Thermoforming Machine	**Memo** Thermoform as per Dwg. D4635-1 and Folio FTA147	0.00							14/05/13
	Dwg. Rev. E								
	Folio Rev. D								
	Visually inspect for proper formation and texture								
130	HAND FINISHING THERMOFORMING	0.00				x1			BB 14/06/17
130 Thermoform Thermoforming Machine	**Memo** Trim to Finished Dimensions	0.00							
140	~~QC-~~ Inspect dimensions to drawing	0.00							
140 QC Quality Control	Dimensional Inspection								DAS 16 9-89 14/06/18
QC5 6	**Memo** Fill out Inspection Sheet Rev A	0.00							

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

DART AEROSPACE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

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- ☐ Crimp/Kink/Ripple/Wave
- ☐ Cuffs
- ☐ Crushing
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Marks/Chatter
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damage/Defect
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drawing
- ☐ Drill Holes
- ☐ Finish
- ☐ Fit/Function
- ☐ Folio/Program
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete/Unqualified
- ☐ Instructions Incomplete/Unclear
- ☐ Misaligned/off center
- ☐ Mislabeled
- ☐ Misread
- ☐ Off-set
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Set-up
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

Work Order ID 119247

119247

May-14-14 10:26:20 AM

Item ID: D4635-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Fwd Ceiling Panel, LH

Start Date: 5/14/14 **Start Qty:** 1.00 *1* **Cust Item ID:**

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Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	Memo MLS	0.00							
Quality Control									
160		0.00							
160	Packaging								
Packaging	Memo Section MF	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

0 SAD 14/06/19

MLS 14-06-19

14-6-19

DQA: _____ Date: _____

DART AEROSPACE

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
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Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
Large Fab ☐ Composite ☐ Supplier ☐

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☐									
Doc/Data	☐									
Equip/Tooling	☐									
Handling/Pre	☐									
Material	☐									
Operator	☐									
Offset/Setup	☐									
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Supplier	☐									
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Unapproved	☐									

FAULT CATEGORY

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General

☐ Bend
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☐ Countersink
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☐ Drawing
☐ Drill Holes
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☐ Fit/Function
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☐ Mislabeled
☐ Misread
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☐ Out of Sequence
☐ Outside Dimensions
☐ Over/Under tolerance
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☐ Part Lost/Missing
☐ Part Moved
☐ Positioned Wrong
☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other

Picklist Print

May-14-14 10:26:29 AM

Work Order ID: 119247 *119247*

Parent Item: D4635-1 *D4635-1*

Parent Item Name: Fwd Ceiling Panel, LH

Start Date: 5/14/14 **Required Date:** 5/14/14

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B
Dwg. Update 12/11/08 DL IPP Rev. C Dwg Update
13/07/09 DL IPP Rev D Dwg Update, Material
Change 14/01/20 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	1,688.773	14.9 **	15			DAS 07 9-8S

MLEXS.093-F6006-07

GE PLASTICS LEXAN SHEET

14/05/14

Location	Loc Qty	Loc Code	
MAT023	1688.77332		
114459	229.26		
123105	38		
124501	543.5		
m128668	600.68		15 58 AL
m129014	277.33332		

DQA: _____ Date: _____

DART AEROSPACE

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date: Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

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Scrap ☐
Use-as-is ☐
Suspected Unapproved ☐

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Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
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Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

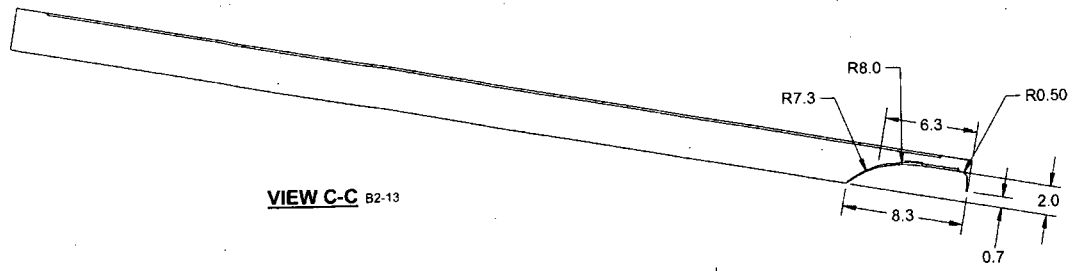
FAULT CATEGORY

Landing Gear

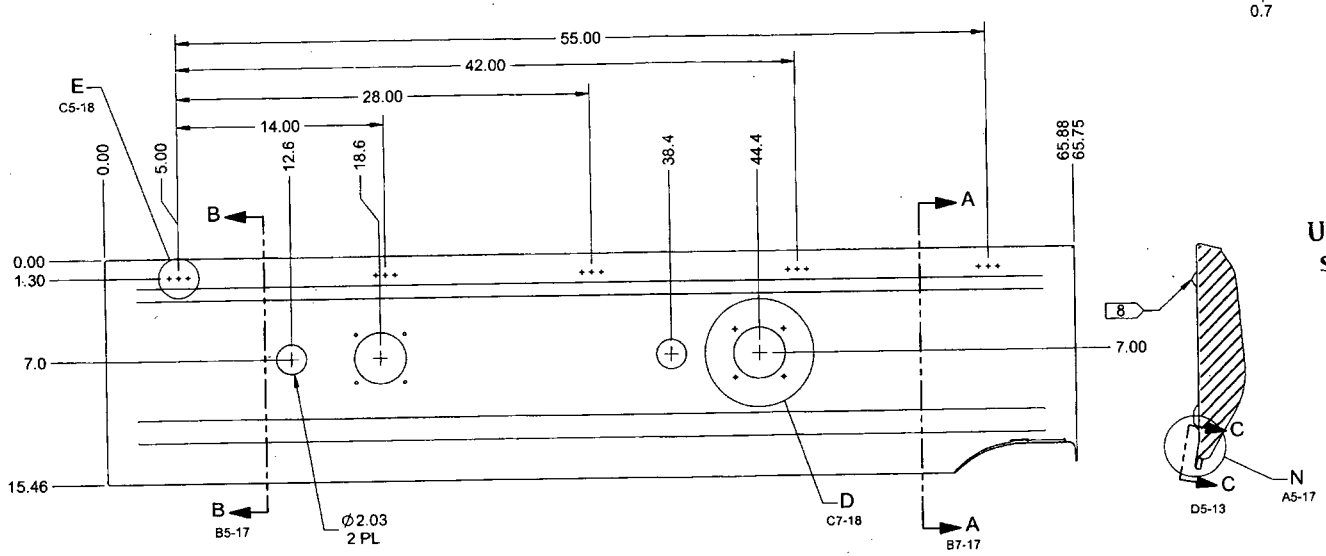
☐ Bending
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☐ Power Loss/Surge
☐ Pressure/Forced
☐ Set-up
☐ Temperature/Cure
☐ Weld
☐ Wrong Stock Pulled
☐ Other



VIEW C-C B2-13



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 119247 MLS

14-05-14

RELEASED
2014-01-22

NOTES:
1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)
2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A
7) WEIGHT: 4.39 lbs
8) TEXTURE ON THIS SIDE
9) TRIM D4635-1 PER TOOL DT9839
10) THERMOFORM D4635-1 PER QSI 022 USING DT9847 TOOL
MIN. THICKNESS AFTER FORMING:
SHADED AREA = 0.040
RIDGES/EDGES = 0.060
ELSEWHERE = 0.070

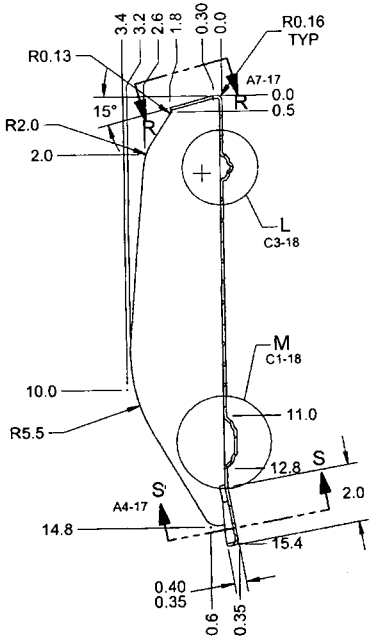
D4635-1 LH, FWD CEILING PANEL

DESIGN	RF
DRAWN	RF
CHECKED	DC
MFG. APPR.	
APPROVED	
DE APPR.	
DATE	14.01.09

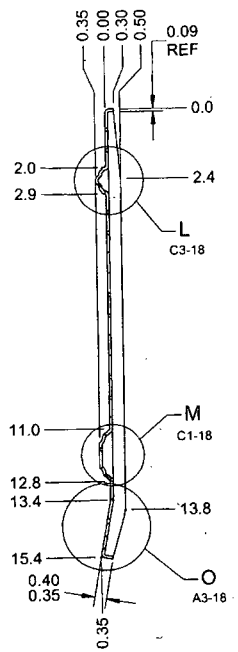
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D4635 REV. E
SHEET 13 OF 18
TITLE OUTBOARD CEILING PANELS
SCALE NTS

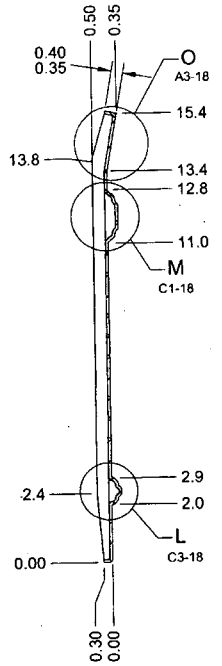
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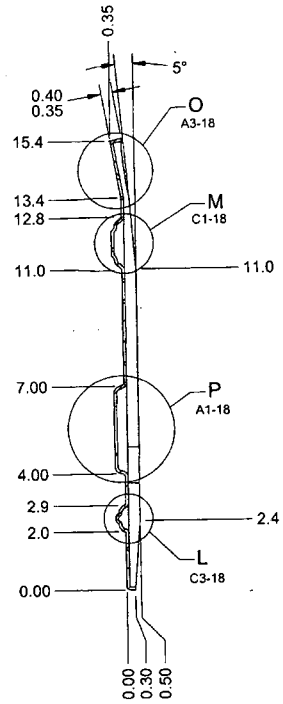
SECTION A-A
SECTION A'-A' OPPOSITE B3-13 B3-14
SCALE 2X



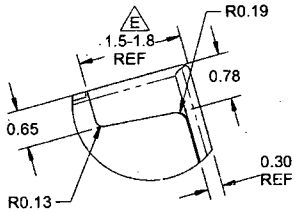
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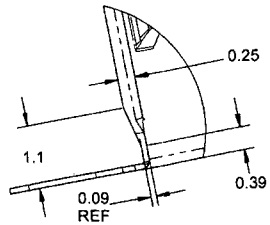
SECTION G-G B4-15 B4-16
SCALE 2X



SECTION K-K C6-16
SCALE 2X



AUXILIARY VIEW R-R D7-17
SECTION R'-R' OPPOSITE
SCALE 2X

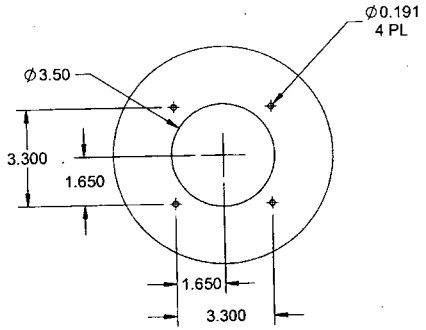


AUXILIARY VIEW S-S B7-17
SECTION S'-S' OPPOSITE
SCALE 2X

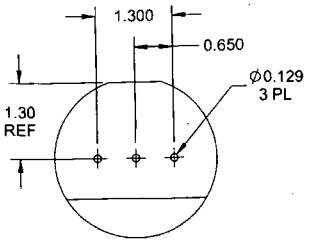
RELEASED
2014-01-22

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	DRAWING NO. REV. E
CHECKED	DC	D4635 SHEET 17 OF 18
MFG. APPR.		TITLE SCALE
APPROVED		OUTBOARD CEILING PANELS NTS
DE APPR.		
DATE	14.01.09	

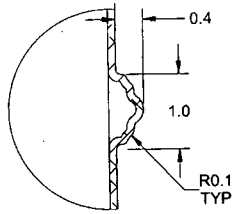
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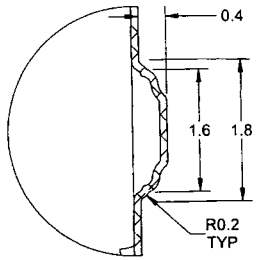
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SCALE 2X



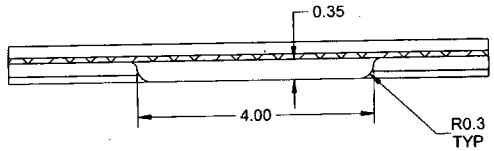
DETAIL E C7-13 B6-14 C6-15 B5-16
SCALE 4X



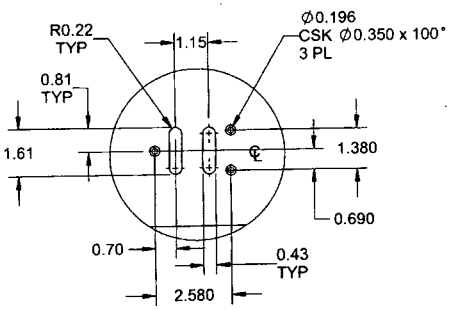
DETAIL L B2-17 B4-17 C5-17 C7-17
SCALE 1.5X



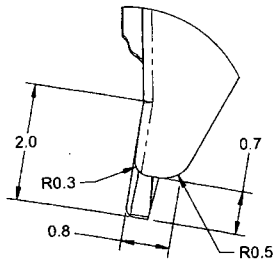
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SCALE 1.5X



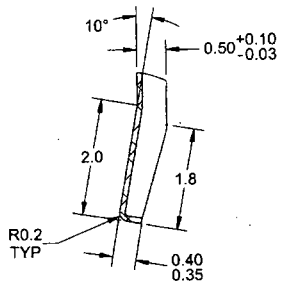
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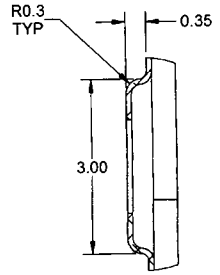
DETAIL Q C5-16
SCALE 2X



DETAIL N B2-13
SCALE 2X



DETAIL O D2-17 D3-17 B5-17
SCALE 2X



DETAIL P C2-17
SCALE 4X

RELEASED
2014-01-22

DESIGN	RF	**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	DRAWING NO. D4635 REV. E
CHECKED	SC	SHEET 18 OF 18
MFG. APPR.		TITLE OUTBOARD CEILING PANELS
APPROVED		SCALE NTS
DE APPR.		
DATE	14.01.09	

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DART AEROSPACE LTD

Description: Fwd Ceiling Panel		**Work Order:**	119247
Inspection Drawing: 4635-1	**Rev:** E	**Part Number:**	D4635-1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
14.00	+/- 0.030	14.00	✓		M-T	SFAB-21
28.00	+/- 0.030	28.00	✓			
42.00	+/- 0.030	42.00	✓			
55.00	+/- 0.030	55.00	✓			
5.00	+/- 0.030	5.00	✓			
12.6	+/- 0.100	12.6	✓			
18.6	+/- 0.100	18.6	✓			
38.4	+/- 0.100	38.6	✓			
44.4	+/- 0.100	44.4	✓			
1.3	+/- 0.100	1.3	✓		Vern	SFAB-08
7.0	+/- 0.100	7.0	✓		M-T	SFAB-21
7.00	+/- 0.030	7.00	✓		"	"
Ø2.03	+0.002 -0.001	Ø2.03	✓		Vern	~~Vern~~ SFAB-08
Ø0.791	+0.005 -0.001	Ø0.191	✓			
Ø3.50	+/- 0.010	Ø3.50	✓			
3.300	+/- 0.010	3.300	✓			
1.650	+/- 0.010	1.650	✓			
Ø1.29	+0.005 -0.001	Ø0.129	✓			
1.300	+/- 0.010	1.300	✓			
0.650	+/- 0.010	0.650	✓			

Measured by:	Checked By:	QC inspector:	Engineering Approval (*if necessary*):
SAD	DAS 16 9-89	DAS 16 9-89	
Date 14/06/18	Date 14/06/18	Date 14/06/18	Date